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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,142	10/09/2003	J. Michael Ramstack	000166.0073-US02	6453

26853 7590 03/09/2007

COVINGTON & BURLING, LLP
ATTN: PATENT DOCKETING
1201 PENNSYLVANIA AVENUE, N.W.
WASHINGTON, DC 20004-2401

EXAMINER	
TRAN, SUSAN T	
ART UNIT	**PAPER NUMBER**
1615	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/681,142	RAMSTACK ET AL.	
	Examiner	Art Unit	
	Susan T. Tran	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,11 and 13-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11 and 13-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/05/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-9, 11, 13 and 15-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Francois et al. WO 97/44039, in view of Ramstack et al. WO 95/13799.

Francois teaches an aqueous suspension formulation comprising particles of 9-hydroxyrisperidone dispersed or suspended in a pharmaceutically acceptable carrier such as water (page 4, lines 21-30; and page 5, lines 34-37). The aqueous suspension further comprises a suspending agent and a wetting agent, such as sodium carboxymethyl cellulose (page 6, lines 1-17). The formulation is suitable for parenteral administration through fine needle ranging from 21-22 gauge (page 7, lines 1-5; and examples). Francois does not teach mixing the ingredients in the claimed order (see

page 7, lines 19-29). However, selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results. *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946); and *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930). See also Ex parte Rubin , 128 USPQ 440 (Bd. App. 1959). Accordingly, it would have been obvious to one of ordinary skill in the art to, by routine experimentation modify the order of mixing the ingredients to obtain the claimed invention, because Francois teaches the use of the same ingredients for the same purpose, namely, an efficient, well-tolerated injectable formulation of 9-hydroxyrisperidone, suitable for fine needle having diameter ranges from 21-22 gauge.

It is noted that Francois does not teach the viscosity of the suspending agent. However, it is the position of the examiner that the suspending agent taught by Francois would have the claimed viscosity, because Francois teaches the use of the same suspending agent, *e.g.*, sodium carboxymethyl cellulose, to obtain the same composition, *e.g.*, an aqueous suspension suitable for injection through a needle into a host.

Francois does not expressly teach the claimed binder in the particle.

Ramstack teaches a microparticles formulation suitable for parenteral administration comprising polymeric matrix including poly(d,l-lactic-co-glycolic acid) having a molar ratio from about 85:15 to about 50:50 (pages 15-16). The microparticles further comprises risperidone as active agent (page 30, lines 16-20; and examples). Thus, it would have been obvious to one of ordinary skill in the art to modify the formulation of Francois using the microparticles of risperidone in view of the teaching of

Ramstack, because Ramstack teaches a biodegradable system, an injectable system that prevents the loss of dose during treatment, because Ramstack teaches microparticles for controlled/sustained release of risperidone, because Ramstack teaches dry microparticles of risperidone are suspended in an acceptable pharmaceutical liquid vehicle prior to administration to a patient (page 29, lines 27-31), and because Francois teaches the desirability of obtaining an efficient, well-tolerated, sustained or delayed release injectable composition of a 9-hydroxyrisperidone (page 3, lines 23-26).

Francois further does not explicitly teach mixing the ingredients in a syringe, as claimed in claims 8, 9, 15 and 16.

Ramstack teaches microparticles were syringe loaded and resuspended in the syringe with an injection vehicle. The suspension was reconstituted with WFI prior to injection (page38, lines 4-9). Thus, it would have been obvious to one of ordinary skill in the art to use the syringe in view of the teaching of Ramstack to mix the ingredients taught by Francois, because Ramstack teaches a known method for mixing or reconstitute active agents with an injectable vehicle prior to administration to a patient.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Francois et al. WO 97/44039, in view of Ramstack et al. WO 95/13799 and Okada et al. US 5,631,021.

Francois and Ramstack are relied upon for the reasons stated above. Francois does not explicitly teach changing the temperature of the suspension.

Okada teaches procedures for increasing the viscosity include a heat treatment, cooling to a low temperature, freezing, changing pH, or adding carboxymethyl cellulose (column 6, lines 16-24). Thus, it would have been obvious to one of ordinary skill in the art to change the temperature of the suspension to obtain a desirable injectable formulation in view of the teaching of Okada, because Okada teaches changing temperature to obtain a desirable viscosity is well known in the art, and because Okada teaches a known equivalent of changing the temperature and adding carboxymethyl cellulose.

Response to Arguments

Applicant's arguments filed 12/05/06 have been fully considered but they are not persuasive.

Applicant argues that there is no motivation to combine the teachings of Francois with Ramstack, because Francois teaches a sustained release formulation of a metabolite or pro-drug of risperidone, while Ramstack teaches a sustained release formulation of risperidone itself. Accordingly, Francois teaches away from use of risperidone itself.

However, in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir.

1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, Ramstack teaches a useful sustained release formulation that is suitable to deliver active drugs by parenteral. Ramstack teaches a biodegradable, injectable system that prevents the loss of dose during treatment. Francois teaches the desirability of obtaining an efficient, well-tolerated, sustained release injectable composition for 9-hydroxyrisperidone.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan T. Tran whose telephone number is (571) 272-0606. The examiner can normally be reached on M-F 6:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA/OR CANADA) or 571-272-1000.

S. Tran
Primary Examiner
Art Unit 1615